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State of Utah

JON M. HUNTSMAN, JR. Governor

GARY HERBERT
Lieutenant Governor

# Department of Environmental Quality

Amanda Smith Executive Director

DIVISION OF WATER QUALITY Walter L. Baker, P.E. Director

February 24, 2010

CERTIFIED MAIL (Return Receipt Requested)

Mr. David Hibbs, President UtahAmerican Energy, Inc. Genwal Resources, Inc. P.O. Box 910 East Carbon, UT 84520-0910

Subject:

Inspection Reports - UPDES Permit No. UT0024368 (Crandall Canyon Mine)

Dear Mr. Hibbs:

On February 2, 2010 I conducted Reconnaissance and Compliance Sampling Inspections in regards to your UPDES permit referenced above. Specifically I observed the outfalls, discharge and receiving waters of Crandall Creek, which as you know has been discolored to an orange or rust-like appearance. Samples were collected from Outfall 002 upon treatment of the newly constructed iron treatment facility.

Enclosed are copies of the inspection reports for your records. Please review the reports, particularly the "Deficiencies" and "Requirements" sections of the narrative report and contact me with any questions. I appreciate Mr. Shaver's continued efforts to keep me informed of the operations. If you have any questions, please contact me at (801) 538-6779 or by e-mail at jstudenka@utah.gov.

Sincerely,

Jeff Studenka, Environmental Scientist

**UPDES IES Section** 

**Enclosures** 

cc (w/encl):

Amy Clark, EPA Region VIII

Claron Bjork, SE District Health Department

Dave Ariotti, SE District Engineer

Daron Haddock, Division of Oil Gas & Mines

Dave Shaver, West Ridge Mine Dale Harber, US Forest Service

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DIV. OF OIL, GAS & MINING

### **INSPECTION PROTOCOL**

UPDES Permit #: UT0024368 - Genwal Resources Crandall Canyon Mine

Inspection Type: Reconnaissance Inspection + Compliance Sampling Inspection

Inspection Date: February 2, 2010

Weather Conditions: Sunny and cold ~ 25 °F.

Jeff Studenka of the Division of Water Quality (DWQ) visited the UtahAmerian Energy, Inc., Crandall Canyon Mine Facility (a.k.a. Genwal Resources, Inc.) while already in the area. The purpose for the site visit was to perform reconnaissance and compliance sampling inspections as a result of continued elevated total iron concentrations in the mine water discharge as noted during previous inspections in 2009. A new iron treatment system has recently been completed and in operation, although further treatment is likely necessary to settle out the total iron.

### **FACILITY DESCRIPTION**

Location: Within Manti-LaSal National Forest, approximately 1.5 miles up Crandall Canyon,

off Hwy 31 in Huntington Canyon, ~15 miles northwest of Huntington, Utah.

Coordinates: Outfall 001 – 39° 27' 38" latitude, -111° 09' 38" longitude

Outfall 002 – 39° 27' 38" latitude, -111° 09' 59" longitude

Average Flow: ~ 0.75 MGD (Outfall 002)

Receiving water: Crandall Creek to Huntington Creek

<u>Process</u>: Former underground coal mining operation. Water from the inactive mine is gravity conveyed to below ground settling areas, where it is then piped out of the mine and then thru a newly installed oxidation unit and settling basin before discharging to the Crandall Creek culvert (Outfall 002). Surface water is conveyed to an above ground settling pond with a discharge point (Outfall 001) to Crandall Creek.

### **INSPECTION SUMMARY**

The reconnaissance inspection was limited to outside the mine where the water collection and distribution systems are exposed. At the time of the inspection, the sedimentation pond was covered with snow and ice and well below discharge levels for outfall 001. The mine water flow meter was observed to be functioning properly with effluent flows ranging from 314-360 gpm as displayed for outfall 002. The outfall locations were observed as well as the receiving waters of Crandall Creek. Above the mine site, Crandall Creek was flowing very clear and steady at the upstream flume location, however below the mine site significant rust-colored deposits were observed immediately adjacent to the Crandall Canyon culvert and Outfall 002 and continuing downstream towards Huntington Creek. The discoloration continues and is likely from the elevated total iron in the effluent discharge. The newly installed iron treatment facility was observed to be functioning with some baffle improvement activities presently on-going. Photos were also collected and are attached hereto with a photo log.

For the compliance sampling inspection, DWQ collected a discharge compliance grab sample @ 11:45 am from Outfall 002 for total iron and the results will be compared to the February 2010 DMR as soon as both are available.

#### **DEFICIENCIES**

Although there were no additional deficiencies noted from these inspections, the on-going numeric effluent limitation violation for total iron, as well as the Narrative Standard for Water Quality violation due to the discoloration of the stream channel, which were both listed as deficiencies on previous inspection reports from 2009, still remain a concern until the iron treatment system is operating properly and therefore, have been listed as deficiencies once again. At the time of this inspection, the January 2010 total iron sample results were reported to DWQ and the result was 3.2 mg/L, which is unchanged from December 2009 result and still significantly above the permit limit of 1.0 mg/L.

These issues have previously been addressed under separate cover with Notice of Violations (NOVs) and a formal enforcement action to include a Settlement Agreement, which has recently been finalized. However, continued violations of either deficiency may result in further escalated enforcement proceedings.

#### **REQUIREMENTS**

- 1. Continue treating the mine water for excessive total iron concentrations, keep DWQ informed of your progress and return the Genwal facility to full compliance with the provisions of your UPDES permit as soon as possible to avoid further enforcement.
- 2. Continue monitoring for dissolved iron as well as total iron and report all results to DWQ.
- 3. Continue regular visual monitoring of the entire stream channel for any impacts to fish and other wildlife and report any such impacts to DWQ and other agencies as appropriate.

#### **ATTACHMENTS**

- 6 photos with photo log
- Outfall 002 UPDES compliance sampling results and trend charts



## United States Environmental Protection Agency Washington, D.C. 20460

### Water Compliance Inspection Report

	Section A: Nation	nal Data System Coding (i.e., 1	(CIS)	
Transaction Code N 1 2	NPDES UT00024368 3 11	yr/mo/day  1 0 0 2 0 2  Remarks	Inspection Typ	pe Inspector Fac. Type  S 19 2 20
Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI QA		Reserved
67 69	$\left\lfloor \frac{4}{70} \right\rfloor$	$\begin{bmatrix} \mathbf{D} \end{bmatrix}$ $\begin{bmatrix} \mathbf{N} \end{bmatrix}$	73 74	75 80
		tion B: Facility Data		
Name and Location of Fac	cility Inspected (For industrial users discharging t		Entry Time/ Date	Permit Effective Date
and NPDES permit numbe	er)		11:30 am/2-2-2010	12-1-2005
Crandall Canyon Mine (a UtahAmerican Energy, I	(a.k.a. Genwal Resources, Inc.)			
~1.5 miles up Crandall C	Canyon off Hwy. 31 in Huntington Canyon		Exit Time/ Date	Permit Expiration Date
NW of Huntington, UT			12:00 pm/2-2-2010	11-30-2010
	esentative(s)/Title(s)/Phone and Fax Number(s)			, SIC NAICS, and other
N/A			descriptive information, Bituminous Coal Und	erground Mining Facility
			SIC Code 1222	
	7.		NAICS 212112	
<u> </u>			SEE ATTACHED	
Name, Address of Respon	sible Official/Title/Phone and Fax Number & Dave Shaver, Resident Agent			
UtahAmerican Energy, I		Contacted		
P.O. Box 1077		$\boxtimes$ $\square$		
Price, UT 84501 (435) 888-4008		Yes No		
(433) 888-4008				
	Section C: Areas Evaluated Dur	ing Inspection (Check only th	ose areas evaluated,	
Permit	Self Monitoring Progra	am Pretreatment		MS4
Records/Reports	Compliance Schedule	Pollution Preven	tion	
Facility Site Review	ew Laboratory	Storm Water		
Effluent/Receiving	ng Waters Operations & Mainten	ance Combined Sewer	r Overflow	
Flow Measuremen				
Z Trow Measuremen			<u> </u>	
(Attac	Section D: Su ch additional sheets of narrative and ch	mmary of Findings/Comment ecklists, including Single Even		s necessary)
SEV Codes SE	EV Description			
A 0 0 2 2 N	Jarrative Standard Effluent Violation			
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			:	
	<del></del>		<del></del>	
Nome(a) and Simple (a)	of Imamostonia	A COST OF THE STATE OF THE STAT	n=(a)	Date:
Name(s) and Signature(s) of IEFF STUDENKA ENV	of Inspector(s) VIRONMENTAL SCIENTIST	Agency/Office/Phone and Fax Number DWQ	tr(s)	Date.
_ ^		(801) 538-6779		7 18- 2010
> > > 80 80	tudente			2-18-2010
N/A				
Name and Signature of Ma	anagement Q A Reviewer	Agency/Office/Phone and Fax Number	er(s)	Date:
MIKE HERKIMER, MA	ANAGER	DWQ		
UPDES IES SECTION	Mike Deckimir	(801) 538-6058		2/24/1/2
EDA Farm 25(0.2 (D 1.00)		1		10 010
EPA Form 3560-3 (Rev 1-06)	rievious editions are obsolete			



### United States Environmental Protection Agency Washington, D.C. 20460

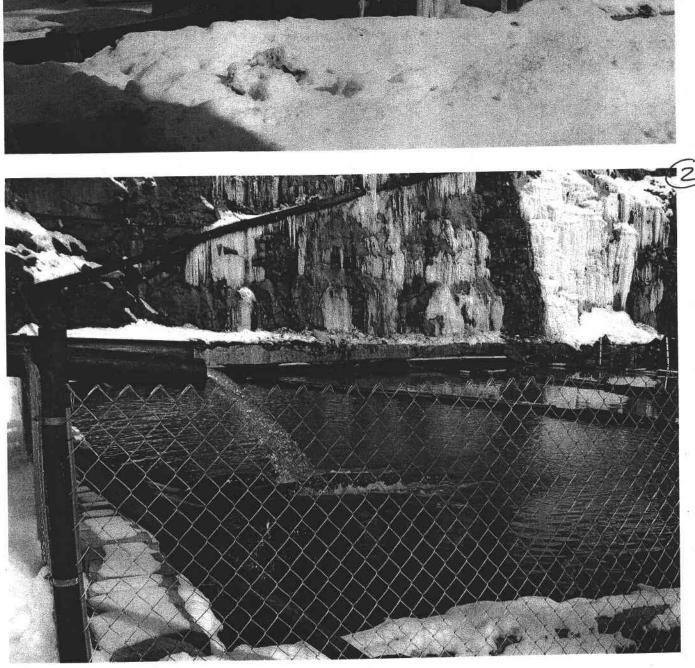
### Water Compliance Inspection Report

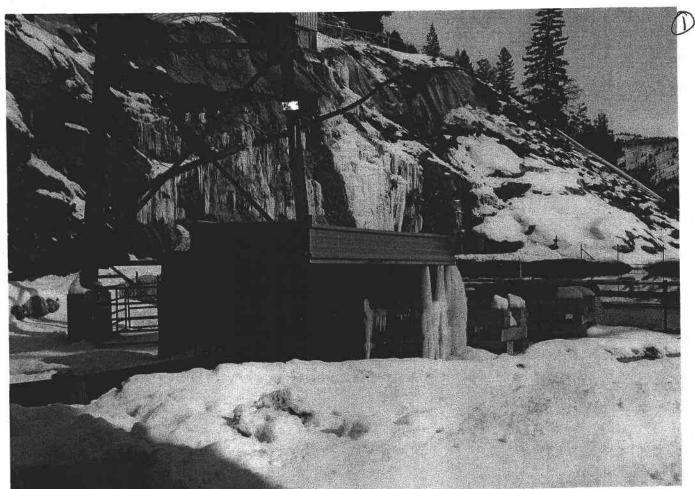
Section A: Nation	al Data System Coding (i.e., I	(CIS)				
Transaction Code   NPDES   U   T   0   0   2   4   3   6   8   11	yr/mo/day  1 0 0 2 0 2  Remarks	Inspection Typ	e Inspector Fac. Type  S 19 20			
21			66			
Inspection Work Days      2     67   69     Facility Self-Monitoring Evaluation Rating   4     70	$ \begin{array}{ccc} \mathbf{BI} & \mathbf{QA} \\                                    $	73 74	Reserved			
Sec	tion B: Facility Data					
		Entry Time/ Date 11:30 am/2-2-2010	Permit Effective Date 12-1-2005			
~1.5 miles up Crandall Canyon off Hwy. 31 in Huntington Canyon NW of Huntington, UT		Exit Time/ Date 12:00 pm/2-2-2010	Permit Expiration Date 11-30-2010			
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)			, SIC NAICS, and other			
N/A		Bituminous Coal Under SIC Code 1222 NAICS 212112	erground Mining Facility			
Name Address of Pesnonsible Official/Title/Phone and Fox Number		SEE ATTACHED				
David Hibbs, President & Dave Shaver, Resident Agent UtahAmerican Energy, Inc. P.O. Box 1077 Price, UT 84501 (435) 888-4008	Contacted  Yes No					
Section C: Areas Evaluated Dur	ing Inspection (Check only the	ose areas evaluated)				
Records/Reports Compliance Schedule Facility Site Review Laboratory Effluent/Receiving Waters Operations & Maintena	Pollution Preven Storm Water Combined Sewer	r Overflow	] MS4			
Section D: Summary of Findings/Comments						
(Attach additional sheets of narrative and ch	ecklists, including Single Even	it violation codes, as	necessury)			
SEV Codes SEV Description  A 0 0 1 2 Numeric Effluent Violations						
N	l om mi in Nint		Data			
JEFF STUDENKA, ENVIRONMENTAL SCIENTIST	Agency/Office/Phone and Fax Number DWQ (801) 538-6779	er(s)	2-18-2010			
N/A	Section B: Facility Data  Location of Facility Inspect of (For Industrial susers discharging to POTW, also include POTW name  Spermit member)  Corryon Mine (& Ka. Gerwal Resources, Inc.)  erican Energy, Inc.  su pC-midal Carryon off Hwy. 31 in Huntington Carryon  Indigon, UT  If On-Site Representative(a)/Title(a)/Phone and Fax Number(a)  Indigon, UT  Indigon, United Phone and Fax Number  Indigon, UT  Indi					
Name and Signature of Management Q A Reviewer		er(s)	Date:			
MIKE HERKIMER, MANAGER UPDES IES SECTION MIKE HERKIMER, MANAGER UPDES IES SECTION			2/24/10			

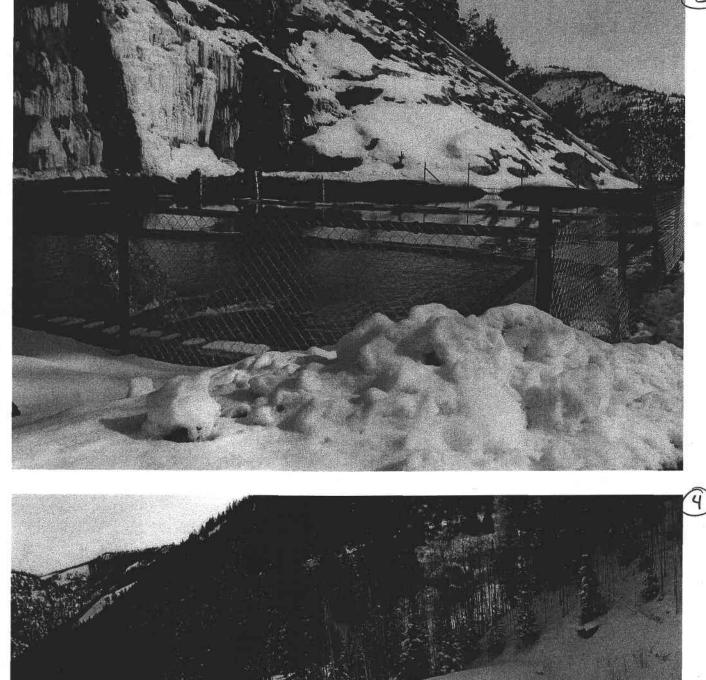
# Genwal RI+CSI (UTW24368) 2-2-2010

Dhata	Ten N	Photo Log				
Photo Number	File Name	Description	Date/		Photographer	
	nla	oxidation unit, facing NE	2-2-10		55	
2		Settling bosin, facing North	1			
3		Settling boom, facing NE				
<u>(4)</u>		Sedimentation pond for outfall 001				
<u>(S)</u>	,	Crandall Creek at outfall 002 culvert	/	1		
6		Solar flow meter for outfall 002		,		
-ENO-						
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	Sec. 1				<del>, (                                   </del>	
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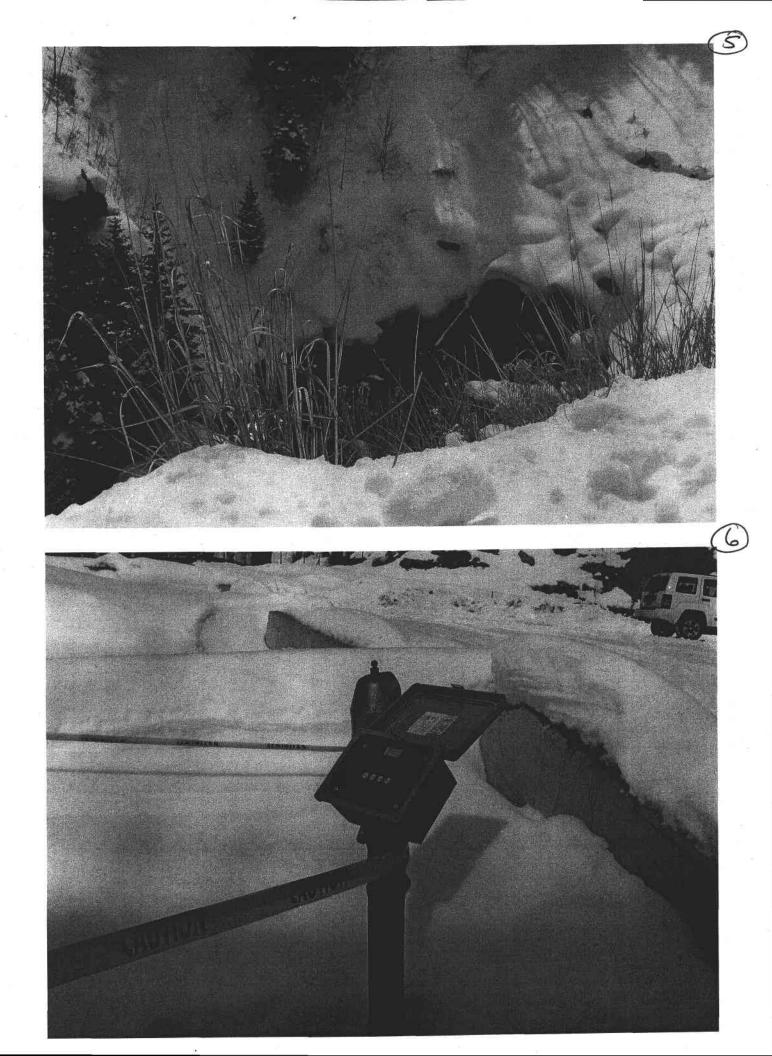
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## UtahAmerican Energy, Inc., Genwal Resources, Inc., Crandall Canyon Mine In-mine Groundwater Discharge

Comparison of 002 Data with UPDES Daily Maximum Permit Effluent Limitations (mg/L)

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	Comile.	SALIGITATION	(10(0)F(0)6(4)				Mandad.		
1-Jan-08		1,200		70		1.0	A CONTRACTOR OF THE PROPERTY O	10	
10-Jan-08	002	1,200	1,523	70	6	1.0	0.937	10	<5
21-Jan-08	002	1,200	1,218	70	10	1.0	2.204	10	<5
28-Jan-08	002	1,200	1,108	70	12	1.0	1.494	10	<5
4-Feb-08	002	1,200	1,025	70	4	1.0	0.815	10	<5
11-Feb-08	002	1,200	1,068	70	<4	1.0	0.765	10	<5
18-Feb-08	002	1,200	1,018	70	<4	1.0	0.668	10	<5
3-Mar-08	002	1,200	1,019	70	35	1.0	1.846	10	<b>&lt;</b> 5
17-Mar-08	002	1,200	957	70	4	1.0	0.626	10	<5
1-Apr-08	002	1,200	941	70	4	1.0	0.653	10	<5
15-Apr-08	002	1,200	907	70	4	1.0	0.491	10	<5
5-May-08	002	1,200	899	70	<4	1.0	0.433	10	<5
14-May-08	002	1,200	868	70	<4	1.0	0.457	10	<b>&lt;</b> 5
1-Jun-08	002	1,200	936	70	4	1.0	0.448	10	<5
16-Jul-08	002	1,200	837	70	<4	1.0	0.434	10	<5
8-Aug-08	002	1,200	813	70	<4	1.0	0.546	10	<5
9-Sep-08	002	1,200	789	70	<4	1.0	0.775	10	<5
10-Oct-08	002	1,200	819	70	5	1.0	1.335	10	<5
15-Nov-08	002	1,200	786	70	<4	1.0	0.141	10	<5
9-Dec-08	002	1,200	772	70	<4	1.0	1.569	10	<5
7-Jan-09	002	1,200	789	70	4	1.0	1.783	10	<5
3-Feb-09	002	1,200	730	70	<4	1.0	2.454	10	<5
4-Mar-09	002	1,200	747	70	6	1.0	2.230	10	<5
6-Apr-09	002	1,200	707	70	5	1.0	2.455	10	<5
6-May-09	002	1,200	696	70	<4	1.0	2.331	10	<5
3-Jun-09	002	1,200	743	70	9	1.0	2.501	10	<5
29-Jul-09	002	1,200	677	70	7	1.0	2.924	10	<5
24-Aug-09	002	1,200	673	70	6	1.0	5.151	10	<5
3-Sep-09	002	1,200	680	70	6	1.0	3.012	10	<b>&lt;</b> 5
28-Oct-09	002	1,200	683	70	9	1.0	8.030	10	<5
18-Nov-09	002	1,200	687	70	7	1.0	3.927	10	<5
16-Dec-09	002	1,200	664	70	5	1.0	3.102	10	<5
31-Jan-10	002	1,200		70		1.0		. 10	

Note 1: 14-Jan-08 sample is discharge from the sediment pond. It was influenced by water previously retained in pond as well as in-mine groundwater that had flowed overland to the pond.

Note 2:

In addition to the TDS daily maximum limit of 1,200 mg/L, the permit also has a limit of 500 mg/L for TDS 30-day average, and Genwal participates in a salinity offset program to ensure that this limit is in compliance.

Note 3: In addition to the TSS daily maximum limit of 70 mg/L, the permit also has limit of 25 mg/L for TSS 30-day average and a limit of 35 mg/L for TSS 7-day average.

